Advanced Occupancy Sensing for Retail & Hospitality

Proprietary **mmWave** sensors to understand space, people & **performance**.

- → Footfall & Flow
- → Space Utilisation
- → Queue Management
- → Engagement Measurement



pemberton.digital is a *hardware-enabled* insights platform for occupancy sensing in retail & hospitality.

The solution combines proprietary **mmWave** radar sensors with a cloud-based analytics platform, providing users with insights on footfall, service metrics, site design, and engagement—without the need for video-based technologies.

Built for purpose, **pemberton**.digital offers complete GDPR compliance, ease of deployment, and cost efficiency. The solution is best-fit for large or multiple trading areas, providing unrivalled visibility at any scale.

pemberton.digital serves QSR, fast casual, grocery, all retail formats, and brand-based visual merchandising.





Cost-Effective







mmWave radar

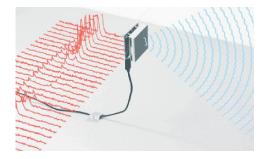
The *right-fit* solution for retail & hospitality.

mmWave radar is similar to the human-spotting technology used in automotive applications. The newly released technology uses high-frequency radio waves to detect human presence, proximity, and dwell with high precision.

Adapted for indoor use, mmWave offers unique "**open field**" **capabilities** to unlock a range of sensing and measurement applications, both for operational and analytical purposes.

Beyond people counting, occupancy data is plotted onto a digital floor plan to map pathways, dwell, queue, and service metrics, in addition to zone usage and busyness.

Its lens-less nature offers advantages across privacy, cost, and deployability.



CF.10 - Customer Flow

Adaptive sensing for any environment.

Designed for both fit-and-forget installations and temporary deployments, the **CF.**10 is **pemberton.**digital's smart occupancy sensor for indoor applications.

Roughly the size of a pack of cards, **CF.**10 can be tuned to perform a range of tasks to monitor an area of up to 1,000 sqft. The device ships pre-configured with minimal touch required from the user.

Reporting wirelessly via LoRa, 5G or Wi-Fi, the **CF.**10 delivers occupancy data to the cloud-based analytics platform and dashboard.



Design Details

- 60 GHz mmWave radar module
- Custom processing & communication PCB
- Independent LoRa, 5G Wifi connectivity
- Powered via USB-C or PoE
- Dimensions: 117 x 82 x 16 mm, 120 grams
- 100% anonymous detection (zero PPI)
- Mounted via adhesive, magnetic, or fastening hardware

CF.10 - Applications



Traffic & Occupancy Monitoring

New opportunities in traffic & occupancy sensing.

Unlike established "doorway" technologies, the **CF.**10's unique open field capabilities are not restricted by the device's position or orientation within a space. With a 1,000 sq ft range, virtual gates can monitor both irregular and open-plan areas with ease and precision.

- Flexible Mounting & Configurations
- Entry, Exit & Dwell Analysis
- Time-Mapped Occupancy Trends

Queue Detection & Analysis

Know the when, where & why of conversion bottlenecks.

Placed near a service area, the **CF**.10 can detect and report on customer queuing, providing valuable insights for both operational and analytical purposes. Optimise throughput and customer experience by identifying and addressing service bottlenecks.

- Visibility Over Service Areas
- Queue Performance & Service Metrics
- Enhance Throughput & Conversion

CF.10 - Applications



Customer Flow & Zone Usage

Shop floor visibility, at any scale.

CF.10 detects the presence, directionality and dwell of customers across any space, providing detail on customer flow, zone usage and site performance. Occupancy data is time-mapped to a digital floor plan, with metrics to accompany areas of interest.

- Traffic & Dwell Heat Mapping
- Aggregate Customer Pathways
- Clarity on Zone Usage & Occupancy

Impression & Engagement Measurement

Measure the reach & impact of visual merchandising.

CF.10's lens-less design provides new opportunities to measure the impact of visual merchandising, brand activations and shop-in-shop installations. Benchmark footfall, engagement scores and deployment meta data to refine and enhance marketing efforts.

- Visibility Over Service Areas
- Queue Performance & Service Metrics
- Enhance Throughput & Conversion

pemberton.digital is a venture-backed retail technology business based in East London.

Led by Patrick Coleman (former Cisco leader) and Andrew Cameron (commercial development, investment), Pemberton is developing a range of occupancy technology solutions for retail, hospitality, and asset management. In a competitive field of people counting solutions, Pemberton is first to market with mmWave radar - a recent innovation with unique "open field" capabilities.

With a focus on providing the most cost-effective, private, and deployable solution, our vision is to offer unrivaled "in-store" visibility at any scale. Pemberton completed its first pilots in Q2 2024 and began monetised deployments in Q3 with a mix of independ and national brands.



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https://calendly.com/pembertondigital/30m